



Dublin's Economy - the Key to Ireland's Future

5th November 2009
The Mansion House
Seminar Report

Chair: Colm Rapple
Presentations
Joe Durkan, UCD
Jonathan Stenning, Cambridge Econometrics
Response to the Presentations:
Dr Ronnie O'Toole, National Irish Bank

Background to the Seminar

The importance of acknowledging and treating the economy of the city-region as a separate entity to the national economy has become more apparent in recent times. In this context, the Office of International Relations and Research at Dublin City Council hosted the November 2009 seminar, *Dublin's Economy – the key to Ireland's future*.



Aerial view of Dublin city

The objective of the discussion was to explore policy options and actions that could develop the Dublin economy as the engine of Ireland's economic future, against an analysis of the current position, challenges and strengths and comparison with European cities of like size.

The Office of International Relations and Research in Dublin City Council was set up to develop international links for the city in a way that promotes its economy. The Office is developing economic indicators for the city and, where appropriate, benchmarking these against other internationally competitive regions.

The event was well attended with representation from the public sector, the social partners, academia and individual private firms.

Summary of the Proceedings

Dublin to lead the national economic recovery

The Dublin City region will lead the national economic recovery and create most jobs in the near future, the conference held in the Mansion House was told. Dublin's contribution to the Irish economy is affected by a number of factors including infrastructure - both physical and educational - the conference heard.

Dr Ronnie O'Toole, Chief Economist with National Irish Bank and Joe Durkan, UCD Economist, said that Dublin had fared better than the rest of the country in the current recession because of its lower dependence on construction.

The city's broad spread of services would help to generate growth of 2pc in 2010 and 2pc in 2011. 'Dublin is THE services city accounting for 3pc of world international trade in services from a population of only 0.003pc,' Dr O'Toole said.

Dublin also benefits from more positive population trends and demographics than other European cities, which are competing for investment. 'There will be a migration of up to one million people from rural Ireland to cities like Dublin over the next 20 years' he said.

In general the private sector in Dublin has adjusted quickly to the recession with many small service firms like software and financial services taking pay cuts while maintaining employment. 'There has been a notable improvement in productivity in firms in Dublin' he said.

Dr O'Toole warned that the cost of providing services to rural areas would have to be examined. 'The McCarthy report has turned the

spotlight on the cost of providing services like small schools and small Garda stations in rural Ireland compared with the cities. It makes sense to focus all investment on the next generation of broadband on the Dublin area where most of the economic activity is based' he argued.

Joe Durkan of UCD told the conference in Dublin's Mansion House that the city's economy had developed and changed over many decades to its current level of sophistication. Traditional manufacturing industries such as brewing and tobacco and services such as Dublin Docks were no longer the large employers they had been . Flexibility is required for future progress, Mr Durkan argued.

'For the general economy, wage cuts are better as people stay in jobs and spend more by dipping into savings than they could if they were unemployed,' he said.

Mr. Durkan predicted that the development of services such as hospitals, indigenous business and education had formed the basis for a network of companies which would continue to expand their activities abroad. He said banking services was a key area for future growth.

Dublin City Manager John Tierney told the conference that the role which the Dublin region plays in the national economy is often ignored when policy is decided. 'Transport 2021 is the only policy document which recognizes Dublin as an economic entity' he said. On the grounds that 'we need to know where we stand' the Creative Dublin Alliance had been set up in 2008 with the Dublin Chamber of Commerce to try to develop solutions and to work on branding the region. Mr. Tierney said that as part of the process of identifying the Dublin region as an economic entity, it was

important to look at a model which would benchmark Dublin against other international cities. 'We need to be innovative and creative' Mr. Tierney said.

Report of the Proceedings

Welcome by John Tierney, Dublin City Manager: The Case for the Dublin Economy

Mr. Tierney welcomed speakers and attendees to the conference by pointing out that there was little talk five years ago, when he joined Dublin City Council from Fingal Council, about Dublin as a separate entity and an engine for the national economy. "Transport 2021 is the only policy document which recognizes Dublin as an economic entity" he said. On the grounds that "we need to know where we stand" the Creative Dublin Alliance was set up in 2008 with the Universities, Dublin Chamber of Commerce, IBEC and not for profit organisations to develop creativity and innovation in the city and to jointly work on branding the City region. There has also been the establishment of the Innovation Alliance between UCD and Trinity College.

As part of the process of identifying the Dublin region as an economic entity, it was important to look at a model which would benchmark Dublin against other international cities. "As a city we need to be innovative and creative" Mr. Tierney said.

Conference Chairperson, Colm Rapple, said that as a Dublin native of three generations it was unusual to think of Dublin as an economy. This was particularly so given that Dublin's fiscal tools were limited. Ireland is clearly an economy with output, distribution and consumption. However, despite the limited

economic tools which are available to Dublin, the City could indeed be considered an economic entity in itself.



John Tierney, City Manager opens the seminar

The Dublin Economy – Today, Tomorrow and Beyond

Presentation by Joe Durkan, School of Economics, UCD

Joe Durkan was introduced by conference Chair Colm Rapple as an economist of great experience over many years, firstly as an author of many of the ESRI Quarterly Economic Forecasts and more recently as an academic with UCD. Mr. Durkan had lived through three economic crises.

For his part Joe Durkan spoke briefly of his experiences working on regional forecasts using econometrics. One of those studies had concluded that the N7 should be abandoned due to a perceived lack of demand in its hinterland. However subsequent development in the surrounding area and the rise in national economic activity had justified the investment in the N7.

Mr. Durkan's presentation was broken into three phases of Dublin's past, present and future economic outlook.

Dublin Past

Dublin evolved from a city with 'a lot of industry' before protectionism was phased out and was 'transformed from the late 1950s along with the rest of the economy', according to Mr. Durkan. Dublin had long been an administrative capital combined with a big industrial base. Its transformation saw the development of the city as a retail and financial capital serving the country. 'Coming up to Dublin to do the shopping was commonplace,' he said.

The transformation of Dublin into the modern city that it is now saw the decline of the old employments and the rise of new industries and services. Dublin had two universities for many years with 3,000 students in the 1960s. Since then the student populations of UCD and Trinity have grown three-fold. In fact, in 2009, there were over 65,000 full-time students enrolled in Universities, Institutes of Technology and HEA associated colleges in the Dublin region. The increase in education coincided with the decline of manufacturing and of employment centres such as the docks. Even traditional employers such as Guinness have seen their numbers shrink dramatically since the 1950s.

Unlike many cities in Europe, Dublin's centre didn't die as the traditional employers faded due to opportunistic adaptations. For a time, Dublin attracted foreign investment from companies who were willing to take advantage of cheaper city office rental levels than those in London. With the modernization in telecommunications, Dublin sold itself as a mid-point in the EU between New York and Tokyo and became a tax efficient location after the 1987 crash, hence the success of the IFSC.

Dublin City Centre remained strong despite of out-of-town developments helped by changes to shop opening hours, cultural attractions in theatres and music festivals, restaurants and of course the development of Temple Bar. All of this centre city activity came about despite more difficult but possible access. At this stage Mr. Durkan expressed his opinion that Government Ministers should not interfere in decisions on access to the city centre as this is the responsibility of the local authority.

However Mr. Durkan stressed that Dublin economic activity was not just taking place in the city centre, but rather in a collection of villages which meet a variety of needs for their local populations such as retail services and eating out. These villages include Rathmines and Rathgar, Terenure, Clontarf, Drumcondra, Dalkey and Howth. Mr Durkan also pointed to villages such as Lucan that have not tackled their traffic problems and have not succeeded in attracting local people to spend their leisure time there.

In the past Dublin has been a good place to live and do business but has seen dispersal of the population, and a failure in some cases of public transport to adapt.

Mr Durkan highlighted the poor orbital public transport routes and said there had been a missed opportunity to use a different model for housing density from the 1980s.



John Tierney, Colm Rappale and Joe Durkan

Dublin Present

The city has been adversely affected by the economic crisis and there will be no recovery to pre-bubble levels of economic activity because there is 'no recovery from a burst bubble'.

National output is now down to 2004 levels mostly because of the decline in construction sectors allied to construction and reduced consumer expenditure. The decline in economic activity has been felt primarily in the private sector. However Dublin has not suffered from the collapse in the construction sector as badly as other parts of the country. Unemployment in Dublin rose from 4.2 per cent at end 2006 to 10.3 per cent by summer 2009 while unemployment in Ireland is now 12 per cent (compared with 4 per cent in 2006).

The public sector is still very important to Dublin and the fall-out from the financial services decline is a lot less than might have been expected, according to Mr. Durkan.

There has also been a fall-off in tourism receipts because of the world recession although prices have fallen to reflect lower demand.

In a downturn, private firms reduce costs – which may have been allowed to rise in the

good times due to complacency. There have been reductions in pay in the private sector. Most of the FDI companies in Ireland are managed by local people who have worked hard to get cost structures lower than anywhere else. However in a number of instances costs are rising including rents, local authority charges and insurance for both employees and plant. 'I still don't understand increase-only rents; this will damage firms in the short term,' Mr. Durkan said.

There have also been a number of exceptions to the overall impact of the recession on Dublin in sectors such as in the car trade. Half of the new car market is in Dublin and the 'nonsensical' change in VRT rates, which were far higher than falls in income, resulted in a collapsed market. This has resulted in many failures and closures of motor-related businesses. Many small firms are on the verge of closure, he said.

Similarly pubs have suffered from the fall-off in tourism and local patterns of behavior and have displayed 'less adaptation than expected' to those changes.

Dublin Future

The main threat for the Dublin economy in the future is that while the 'bubble economy' effect has mostly impacted on the private sector, there is still a need for adjustment in the public sector. Irish GNP is now down to 2004 levels and public revenue is down to 2004 levels. Yet public expenditure is still at 2008 levels and the budget deficit is 12.5 per cent of GNP. There is still a need for adjustment to the public finances which will then have a further impact on the private sector. 'Expenditure has to be reduced or else interest payments will destroy us' Mr. Durkan said.

He argued that it is better for consumer spending and the economy to keep public servants in employment on reduced incomes than to shed jobs, as they will maintain expenditure and reduce their savings. 'I find it very hard to understand union leaders justifying job cuts instead of wage cuts. Pay cuts copper-fasten private sector pay cuts and maintain employment,' he said.

The adjustment to the public finances will take several years and the world will not stand still during this period. We need to think of the next stage of development. Dublin's future lies in services and will remain a major retail, financial and administrative centre but needs new sources of growth. A greater shift to internationally traded services is needed.

Dublin's future depends on education and training, the environment for entrepreneurs and the availability of seed and venture capital.



Trinity College Science Gallery Exhibition

The environment for entrepreneurs is positive with the TCD/UCD Innovation Alliance, the Digital Hub, existing software firms and new entrants. However there is a big shortage of seed and venture capital and we don't really have enough finance firms who are in the knowledge business and can support a large number of start-ups. 'Often technical people

are not good at managing money and I remember Dermot Desmond ensuring that seed capital wasn't spent on BMWs' Mr. Durkan recalled.

Existing systems of support for entrepreneurs are too cumbersome and bureaucratic and we need commercial investment firms not grant givers. Mr. Durkan is not convinced about Business Expansion Scheme (BES) as a means of supporting start-ups and many firms seek overseas funding.

Dublin City can develop and prosper again. However, there is still much to be done on the transport side where the periphery needs to be improved and the quality of the housing stock could be enhanced.

The Dublin Economy – Where does it stand internationally?

Presentation by Jonathan Stenning, European Regional Economist, Cambridge Econometrics¹

Jonathan Stenning gave an overview of the international recession and how Dublin might perform against that background relative to other European cities. Mr. Stenning used a number of charts to illustrate his points.

The most recent quarterly data points to the beginning of an upturn in leading world economies including the US, Japan and the Eurozone. The US was expecting something similar to the Great Depression but now has turned the corner although employment numbers are falling. Cambridge Econometrics

¹ www.camecom.com. Cambridge Econometrics apply economic modelling and data analysis to a wide range of policy and business needs in the UK and across Europe.

expectations are for a v-shaped recovery. 'This should be a fairly straight-forward recovery starting in 2010 and making steady progress from there.' However growth over the prior period to 2013 is expected to be very subdued. Within the Eurozone, Ireland is bottom of the list as it has been hit (like Spain) by the property bubble. The forecasts show employment levels as much as 8per cent to 10per cent below current levels in Ireland. Internationally employment levels will lag output growth.



Dublin City Boardwalk

Dublin and Barcelona will see negative or extremely modest growth across most sectors in 2009 including construction, market services, non-market services, energy and manufacturing. However the outlook beyond 2009 for most European cities is more positive. 'Market services will lead the recovery with growth in productivity' Mr. Stenning said. However the employment situation is expected to deteriorate further in the short term, as the growth in market services will not be reflected in employment, as firms will be reluctant to hire staff.

Mr. Stenning looked at the prospects for a number of European cities including Barcelona, Copenhagen, Edinburgh, Amsterdam, Helsinki and Belfast.

Barcelona's economy has been hit by the slowdown in export markets and the city faces similar issues to Dublin in relation to its reliance on a bubble construction sector. Barcelona's tourism revenues should hold up well because of heavy investment in pre-recessionary time on trade fairs. Barcelona has built a strong innovation economy and this has proved relatively resilient to the recession. However much of the Catalunya manufacturing industry is facing major problems due to falling demand.

Copenhagen has been severely hit by the recession: trade volumes are down significantly while market services output and employment is falling at such a rate that they do not expect to recover to pre-recession levels until 2013. While market services will stage a slow recovery, the key driver of growth in the city's economy will be non-market (administrative) services, highlighting the depth of the crisis. Tourism has also been adversely affected.

Edinburgh is strongly dependant on the financial sector to stage a bounce-back as market services remain the key driver of the city's economy. Although most of the city's manufacturing base has disappeared, some niche high-technology production remains. Edinburgh's workforce is highly skilled and developments such as the BioQuarter may help to sustain growth.

Amsterdam has a heavy involvement in international finance and business services which have seen significant falls in output and employment. Amsterdam's future growth is closely linked with that of the larger financial institutions based there. The city economy is very diverse giving it an advantage over other Dutch cities. In the short term public sector spending (such as investment in Schipol Airport

as a rival hub to Heathrow) and continued trade volumes will boost the economy.

Helsinki has a large high-tech manufacturing sector which has struggled as demand has fallen. However the resilience of these cash-rich companies is likely to mean a strong recovery and the growth in services will move the Helsinki economy further away from the rest of Finland.

Belfast is also struggling to handle a fall-out from the construction bubble which has led to large-scale structural unemployment. It has also suffered by the decline in the economy of the Republic of Ireland. Government-funded construction and other projects are limiting falls in output and employment. A bloated public sector may be the target of cuts as the UK government comes under pressure to reduce public account deficits.

Mr. Stenning concluded that there will be a slow, steady recovery from international recession. Dublin faces macroeconomic challenges beyond those of many of the other cities. But lessons can be learnt from other cities within both the public and private sectors. Barcelona, for example, will benefit from pre-booked conferences and Amsterdam expects to benefit from heavy investment in Schipol airport. He pointed to the usefulness of benchmarking in learning from the experience of other cities and applying those lessons at home.



Jonathan Stenning, Joe Durkan, John Tierney and Ronnie O'Toole

Response to the Presentations

Dr Ronnie O'Toole, Chief Economist, National Irish Bank.

Dr Ronnie O'Toole was introduced by Chair Colm Rappale as a Trinity College economist who has spent a number of years with Forfás, the State's industrial development strategy body before joining National Irish Bank as chief economist. Dr O'Toole began by saying that he felt the forecasts by Cambridge Econometrics were overly negative and that the prospects for Dublin and Ireland were, in fact, much brighter.

While Ireland has had a major slowdown and growth could not be expected to exceed 1per cent for each of the next four years he said that by 2013 it will have clawed back about one-third of the economic output lost in the past few years. Throughout the EU growth will return to 2007 levels by 2013 at 2per cent a year but in Ireland we will not feel any growth. 'It will be so little as to be unnoticeable for most people because productivity growth will be of the order of 2per cent per annum' he said.

One important factor which needs to be considered when comparing the Irish economy

with that of the EU is the rapid population growth and positive demographics.

'Denmark, a country I know because it's the home of my employer's parent bank, is similar to Ireland with an agricultural background and a population of 5.2 million people. Denmark is 10 to 15 years ahead of Ireland in economic development and has twice the number of people over the age of 60 as we have in Ireland. We have a young population and that affects economic growth', he said.

To date our unemployment experience in Ireland has been quite good but there will be a further year of unemployment growth. Irish unemployment has risen from 4.5per cent to 12.5per cent. These are levels which are not that different from the rest of Europe. The question is who is going to solve the economic crisis quicker? The answer is those economies with the most flexible labour markets.

Urbanisation in Ireland is way behind most of Europe and over the next 15 years there will be a massive inflow into Dublin and other cities. The economies of most rural areas will remain in decline and construction will not get going again there.

The urbanization trend dictates that we must look at where we make our state investments. The McCarthy report looked at the cost of small Garda stations and small schools. 'Let's look at rolling out the next generation of broadband into the Dublin region as it is very expensive to roll out this kind of service to rural areas,' he said. Dublin is the hub of services in Ireland and punches way above its weight, providing 3per cent of international services spending in the world. This has developed over the last ten or twenty years.

'I believe the prospects for Ireland and Dublin are better than Cambridge suggest. Services are based on small firms which can be very flexible but we need to bring services to them in high density centres.' Despite its detractors there is nothing wrong with city living and the success of the Irish economy is the success of Dublin. 'The stuff we export goes down phone lines not through the ports or airports' he said. Transport within Dublin is still a problem as is the growth in income tax rates. Dublin also needs the attractions which other leading European cities can achieve such as the Paris Plage. 'We need to be getting it out there that Dublin is an attractive place to live,' he said.

Floor Discussion and Summary

Led by Colm Rapple, Economist and Journalist

Following the three presentations, Colm Rapple commented on the range of issues which had been raised and opened the discussion to the floor. The discussion centred on a number of issues including infrastructure and access to capital for entrepreneurs.

Gina Quinn, Chief Executive of Dublin Chamber said she welcomed the comparison with other European cities but would like to see measures of the efficiency of the public sector. She was also concerned about shrinking public services as public spending is cut and the impact on the Dublin economy of those measures.

Jonathan Stenning of Cambridge Econometrics, said it is important to make the most of what you have and focus on what is most effective and maximizing output from that. Joe Durkan said that we have a long way to go on basic infrastructure such as broadband which is bad outside the capital.

Ronnie O'Toole said we have immense efficiency problems in private services and we need to proceed on the development of a single electronic banking service. This has been rolled out in Denmark and in Copenhagen even taxi drivers are extremely reluctant to accept cash. There are immense service inefficiencies in the use of cash and cheques and in other services such as the legal profession.

John Tierney said that many libraries had been completely modernized and upgraded. 'We are attempting to develop the Ambassador Cinema as a central library in joint venture with the private sector and we will be faced with a €250,000 VAT payment on what is a public service,' he said. Similarly any discussion that the Dublin City Council has about pay cuts gets bogged down in the fact that 100 per cent of those pay cuts go to the Exchequer while Dublin City Council generates 75 per cent of its own income. 'Initiatives we are looking at include the expansion of the Dublin Transport Authority nationally. We need to get Dublin recognized as a national resource,' he said.

Ronan King, Amethyst consultant and former Chairperson of the Dublin Chamber of Commerce said that Dublin has to stand up for itself over issues like the Bus Gate. The public sector can provide the infrastructure as we have seen elsewhere. Hong Kong is on the rebound because of a strong venture capital environment similar to Israel.

Greg Swift, of the Dublin Enterprise Board (DEB) said that most companies would not be ready to face a venture capital approach for some time. 'There is a big problem in ownership unless they expect to develop the business to a level where venture capital is necessary' he commented. Mr. Swift argued that DEB had

been involved in the Developing Dublin for Enterprise Plan that contained 87 recommendations.

Alec Drew, managing partner of Baseline Creative Services, said a Lord Mayor with executive responsibilities was needed to provide leadership. 'Business has been left in the lurch because of the lack of a strong leader nationally. Communications is also sadly lacking and there is a void between the public and private sectors. People seem to think there is a bottomless pit of resources. I have had to take pay cuts and let people go' he said.

John McNerney of the Dublin Business and Innovation Centre argued that the ESRI's warnings had been ignored for many years. 'I would also like to see leadership being delivered and people should be paid on the basic salary level plus marginal revenue. Any bonus should be ploughed back' he said. Mr. McNerney continued, 'We need a system that ties the public and private sectors together and we need politicians to come up with a plan for the next seven years.'

Responding to a question about venture capital funds for the environmental sector, Dr Ronnie O'Toole said that the ability to provide funds for future growth was crucial. Denmark has built a large section of its economy based on green technology over the past decade. Jonathan Stenning said Ireland shouldn't rush into green technologies but should become providers of services at the top level.



Delegates at the seminar

Joe Durkan said that there are lots of good people around which venture capitalists would invest in and that in general the State is not good at making money from entrepreneurs. The venture capital person knows some will fail and some will prosper and is much better than the State for making those decisions.

Jim Dunne of Design 21st Century wondered if we know how we can prosper from the success of internationally traded services. Do we know what has caused it and how do we keep it going? Denmark invested huge resources into the design of services both public and private. The source of most innovation in the UK is the public health service. 'Isn't it really about adoption of services in society?' he asked.

Dr Ronnie O'Toole said that the National Competitiveness Council studies had shown that productivity in the traded services sector was high but productivity in the non-traded services was poor. In many cases, businesses are hanging on by their fingernails. He reiterated his view that the widespread use of cheques and cash was a major cost on the State. 'Indigenous Irish firms haven't come to the party although the quality of the jobs is as good as those in Foreign Direct Investment services.'

Jonathan Stenning said the key lay in making services attractive.

Joe Durkan said he could see development arising from hospitals, indigenous companies and the education companies already here which will expand abroad.

Muiris O'Connor of the Higher Education Authority (HEA) said that Ireland has a very young population and there will be a major increase in the number of school-going children. 'There will be massive demand for schools and we need to nurture skills at school level. The under-graduates of 2020 are now entering secondary school. He observed that in general, Dublin people do not access third level as much as those outside Dublin.

John O'Brien of IDA Ireland said he would be more optimistic than some of the commentators. A high proportion of global traded services comes from software and financial services – companies like Google, Paypal, Yahoo. Many companies like Google and Microsoft and IBM do their business over the internet. 'Microsoft have a huge network of sub suppliers here and there is a huge opportunity for Dublin. There has also been a significant increase in competitiveness with rental levels less than 50 per cent of their 2006 levels. 'Let's not forget that over 50 per cent of IDA investment and most of the services go to Dublin' he said.

Journalist and economist Colm Rapple concluded by saying that the range of speakers and comments had shown that Dublin's economy needs to make its mark in the modern era. 'Whether this means that Dublin echoes the experience of 'Paris Plage' or some similar headline event remains to be considered,' he

said. The presentations and the contributions from the audience had opened the debate on how we can boost economic growth in the Dublin region in the future despite fiscal curtailments.

The conference finished with an address by Lord Mayor Cllr Emer Costello who stressed the importance of tackling the issues of unemployment and access to third level education in future policy for the Dublin Economy.

'Against a backdrop of rising unemployment and the continuing economic recession, and with the assistance of City Council members, we are developing an agenda for the coming year that prioritises jobs and the protection of existing employment in a City that makes the most of the talents of its citizens,' Cllr Costello said.

One of the central mechanisms to progress this agenda is the establishment of the Lord Mayor's Commission on Employment. It is intended that all the political parties and independents in the City Council, together with the communities they represent will take ownership of the Commission. Through wide-ranging consultation, the Commission will communicate and engage with the people who are most experiencing the impact of the current economic recession and will do so in a meaningful way that sustains its operation well beyond the term of office of the current Lord Mayor.



The Lord Mayor, Cllr Emer Costello

The work of the Commission will link with and promote the delivery of a range of economic and social reports including the recently launched Economic Development Action Plan for the Dublin City Region. It is intended that the outputs of the Commission will help inform the policies of the new Dublin City Development Plan (2011-2016) and will also contribute to the work of the Strategic Policy Committees.

The Lord Mayor said that the Commission will examine how economic renewal and employment growth in the city can be better promoted by a range of agencies including the City Council. 'The Commission will identify and make recommendations for actions in the four key areas of Unemployment and Employment; Business, Entrepreneurship and Finance; Education, Skills and Training and Volunteering and the Social Economy'.

Acknowledgements

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contribution to the seminar. The Office is grateful also to all those who attended and contributed to what was an interesting and fruitful discussion on the future direction of Dublin's economy. We are also grateful to Jim Aughney who penned the proceedings of the seminar.

The seminar formed part of a programme of events planned by the Office of International Relations and Research in fulfilling its obligations under the Economic Action Plan for Dublin, an initiative of the four Dublin Local Authorities.

Please e-mail research@dublincity.ie if you would like to be included on our mailing list for similar events and reports.



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